STRUCTURAL PEST CONTROL ENFORCEMENT PROGRAM TRAINING

June 5-7, 2001
Sheraton Hotel
Monrovia

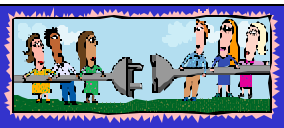
dpr

INTRODUCTION AND AGENDA OVERVIEW

Mostafa Chrichi

Senior Pesticide Use Specialist

DPR



This training is a joint effort of the Enforcement Branch of the Department of Pesticide Regulation (DPR) , the Structural Pest Control Board (SPCB), and the County Agricultural Commissioner And Sealer Association (CACASA)

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The Structural Training Workgroup

- Dennis Patzer, SPCB
- Melinda Al-Alami, Los Angeles County
- Mona Montano, DPR
- Kari Carrillo, DPR
- Mario Ibarra , DPR
- Karen Stahlman, DPR
- Shelley Lopez, DPR
- Jim Walsh, DPR
- Mostafa Chrichi, DPR
- Randy Segawa, DPR

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AGENDA - DAY 1

AFTERNOON SESSION

- SPCB Perspective
- History/Authority and Interagency Relationship
- Branch/License Differences
- Exercises
- Dow AgroSciences
- SPCB Update

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SPCB's PERSPECTIVE

Dennis Patzer

Chief Enforcement Officer

SPCB

HISTORY, AUTHORITY AND INTER AGENCY RELATIONSHIP

Kari Carrillo

Senior Pesticide Use Specialist

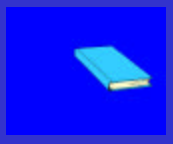
DPR

HISTORY

- 1901 - First law for pesticides
  - Paris Green for drywood termites
- 1935 - The Department of Agriculture is authorized to regulate pesticides
  - Enforcement is assigned to County Agricultural Commissioners (CACs)

HISTORY

- 1936 - Legislation created the Structural Pest Control Act, known as the "Blue Book"



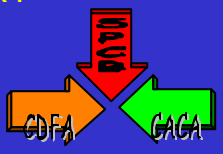
- 1936 - First conviction for operating without a license
  - 30 days in jail + $50.00 fine

HISTORY

- 1976 - Funding from US EPA allowed the first urban structural inspection by a CAC

HISTORY

- 1981 - CDFA, CACA and SPCB interagency agreement to perform enforcement



- 1984 - Structural Pest Control Enforcement Program is established through legislation

REQUIREMENT

- B&P code § 8616
  - SPCB and DPR shall train all inspectors and investigators
- No disciplinary action on B&P code § 8617 until training is completed

AUTHORITY

- FAC § 15201
- Enabling law
  - Joint responsibility between DPR, SPCB and CACs to regulate all structural pesticide activities

AUTHORITY

- B&P Code § 8616.4
  - Designates DPR as agent and authorizes CACs to perform inspections

AUTHORITY

- B&P Code § 8617
  - Right to suspend a license or levy a fine

ORGANIZATION

- Cal\Environmental Protection Agency
  - Department of Pesticide Regulation
    - Pesticide Enforcement Branch
      - County Agricultural Commissioner
    - Structural Pest Control Board
  - Department of Consumer Affairs
- Consumer Service Agency

BRANCH /LICENSE DIFFERENCES

Dennis Patzer

Chief Enforcement Officer

SPCB

WHAT IS STRUCTURAL PEST CONTROL ?

- Definition: B&P Code § 8505
  - Control of household and wood destroying pests which invade households, other structures and their contents
  - Conduct Inspections
  - Identify infestations
    - write reports, make recommendations, submit bids and estimates

LICENSE CLASSIFICATION

The SPCB issues licenses in four specialties

- Branch I - Fumigation
- Branch II - General Pest
- Branch III - Termite Control
- Wood Roof Cleaning and Treatment

LICENSE CLASSIFICATION

- Branch I - Fumigation
  - Operator
  - Field Representative
- Branch II - General Pest
  - Operator
  - Field Representative
  - Applicator
- Branch III - Termite Control
  - Operator
  - Field Representative
  - Applicator

BRANCH I -FUMIGATION

- Use of lethal gases to control:
  - Termites
  - Wood boring insects
  - Other household pests

BRANCH I -FUMIGATION

- Two most commonly used fumigants :
  - Sulfuryl Fluoride (Vikane®)
  - Methyl Bromide
  - Chloropicrin used as a warning agent

BRANCH II
General Pest Control

- Household, Industrial, Institutional and Commercial (excluding fumigants, termiticides and wood preservatives)

BRANCH II
General Pest Control

- Typical pests controlled include:
  - Yard pests
    - Ants, Earwigs, Crickets
  - Noxious pests
    - Spiders, Fleas, Ticks



BRANCH II
General Pest Control

- Typical pests controlled include (cont.):
  - Stored products pests
    - Indian Meal Moth, Cigarette Beetle, Saw toothed Grain Beetle
  - Fabric pests
    - Clothes moth, Carpet Beetle
  - Rodents


BRANCH III
Termite Control

- Inspect for wood destroying pests and organisms in:
  - Homes
  - Commercial Structures and
  - for Real Estate transactions
- Make recommendations
- Perform structural repairs
- Apply termiticides and wood preservatives

WOOD ROOF CLEANING AND TREATMENT

- Inspect wood shake and shingle roofs for damage by wood destroying pests and organisms
- Make recommendations to:
  - Clean roof
  - make minor roof repairs
  - apply wood preservatives

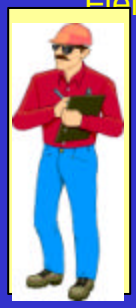
LICENSES

- The SPCB registers companies and licenses people.
- Licensed people include:
  - Operator
  - Field Representative
  - Applicator (Branch II and III only)

LICENSES Operator

- An operator may:
  - own or qualify a company
  - identify pests
  - negotiate contracts
  - apply pesticide
- An example of a typical license number: OPR 9999

LICENSES Field Representative



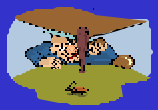
- A licensed Field Representative may:
  - identify pests
  - negotiate contract
  - apply pesticide
- An example of a typical license number:FR 9999

LICENSES Applicator

- A licensed Applicator may:
  - Apply pesticides in Branch II & III
- Fumigants can only be applied by Operators and Field Representative.
- An example of a typical license number: RA 9999

UNLICENSED ACTIVITIES

- Performing work beyond the scope of the license



- Performing work without a license
- Applying pesticides outside the scope of structural use

Break Time!

Please be back in 15 minutes.

EXERCISE 1

Shelley Lopez

Senior Pesticide Use Specialist

DPR

EXERCISE 1

- Determining the appropriate branch license needed.
- Workbook, page 2.

EXERCISE 1- Answers

1) D. Fend Ant Co. - Branch II
2) Marian Nate Co. - Branch III
3) Miss L. Toe & Co. - Branch II
4) Cy O'Narah Co. - Branch II
5) Flora N. Fauna Co. - Ag. License
6) Warren Piece Co. - Branch I
7) Paul Bunyan Co. -Branch III
8) D. Termin Ant Co. - Branch I
9) Alf Abette Co. - Branch II
10) Matt S. Pringh Co. - Branch II or Branch III

EXERCISE 2

- Differentiating between Structural and Agricultural Pest Control for hire.
- Workbook, page 3 .

EXERCISE 2 - Answers

1) Structural, Branch II, All
2) Structural , Branch III, All
3) Structural, Branch III, All
4) Structural, Branch II, All
5) Agricultural
6) Agricultural

INDUSTRY PRESENTATION

Barbara Snowden

Dow AgroSciences Rep.

DAY 1

See you all tomorrow !

REIMBURSEMENT

Mostafa Chrichi

Senior Pesticide Use Specialist

DPR

REIMBURSEMENT

- DPR will reimburse all expenses incurred in this training to CAC staff according to guidelines outlined in ENF 00-37.
- Submit all request to:

  Mostafa Chrichi
  DPR
  P.O. BOX 4015
  Sacramento, CA 95812-4015

AGENDA - DAY 2

MORNING SESSION

- Branch I Fumigation Application (Field)
- Branch 2 Truck application (Field)

AFTERNOON SESSION

- Inspection Review/ Discussion
- Records Inspection and Problems
- Structural Methyl Bromide Fumigation
- New and Proposed SPCB Regulations
- Laws and Regulations Update

AGENDA - DAY 3

MORNING SESSION

- Branch 1 Fumigation Aeration
- Inspection Review/Q&A
- Panel Discussion

BRANCH I - FUMIGATION

- Three groups “according to the color of the dot on our name tag” - will meet in front of hotel . Please don’t be late !
- Observe a structural fumigation inspection
- Complete Inspection Form
- Jot down questions/concerns for review following inspection

Inspection Review/Questions and Answers

Group Discussion

Melinda Al-Alami

Los Angeles County

RECORDS INSPECTION AND PROBLEMS

Karen Stahlman

Senior Pesticide Use Specialist

DPR

RECORDS INSPECTION

RECORDS INSPECTION

E. HEADQUARTERS/EMPLOYEE SAFETY RECORD INSPECTION	REF. SECTION	COMPLIANCE YES	NO	N/A
1. Annual Notification Submitted	15204			
2. Pesticide Use Records Available	15205			
3. Fumigation Log	1970a			
4. Monthly PURs Submitted / Kept	8505.17			
5. Notice of Occupant	863			
6. Pesticide Use Records / Kept 2 yrs	1			
7. Hazard Communication Displayed				
8. Complete [illegible] Training Program				
9. Training [illegible] Handling				
10. Emerge [illegible] Care Post	26			
11. Chang [illegible] Wa	6732			
12. Storag	6738a			
13. Written Res	6738h			
14. Respiratory Equ	6738a			
15. Medical Condition Sta	6738h			
	Total			

METHYL BROMIDE REGULATIONS

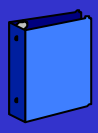
Structural Fumigations

Randy Segawa

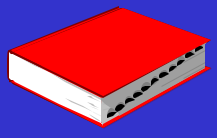
Environmental Monitoring

Overview

CCR Title 3, Div 6, Sections 6000, 6454



- Background
- Monitoring data and computer modeling
- 6000: definition of fumiscope
- 6454(a): distance between structure and property line
- 6454(b - e): tarp requirements
- 6454(f): chloropicrin
- 6454(g): dispersal inside structure
- 6454(h - n): aeration requirements
- 6454(o): alternative methods
- 6454(p): sunset review



Background

- DPR risk assessment indicates an acceptable concentration of 210 ppb
- Monitoring by DPR shows concentrations exceeding acceptable level
- Studies by SCC tested different fumigation methods
- DPR developed mitigation measures based on monitoring data and computer modeling

Methyl Bromide Monitoring

Test Structure: 17,000 ft^3, 1.5 lbs/1000, 26 lbs MeBr

Tarp	Treatment (ppb)	Aeration (ppb)
New	72	22
Good	170 – 220	21 – 74
Old	1100	48
Old w/ poly drape	140 - 230	33

Conclusions from Air Monitoring

- Single “good” tarp results in unacceptable exposures
- Only new tarp results in acceptable exposure
- Polyethylene drape reduces concentrations approx 4X
- ESTIMATED concentrations of good tarp and poly drape
  - 26 lbs MeBr
  - 50 ppb @ 5 ft during treatment
  - 74 ppb @ 10 ft during aeration
- Need additional adjustment for inaccurate monitoring method

Methyl Bromide Recovery Adjustment

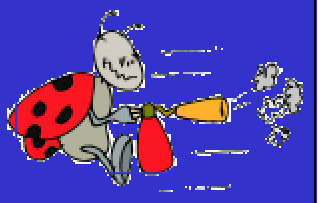
- Monitoring method uses charcoal tubes to measure methyl bromide air concentration
  - Liquid spikes to measure precision and accuracy; recovery ~70%
- SUMMA canisters showed higher concentrations than charcoal tubes in collocated field samples
- DPR apparatus used to create known air concentrations
- Charcoal recovery ~50%
- Monitoring results (26 lbs MeBr, 50% recovery)
  - 70 ppb @ 5 ft during treatment
  - 104 ppb @ 10 ft during aeration

Computer Modeling

- No monitoring data for large fumigations
- Used computer model to estimate concentrations
- Same modeling procedures as commodity fumigation
- Industrial Source Complex-Short Term model (ISCST)
- Air concentration estimates based on
  - amount of methyl bromide
  - stack height
  - weather conditions
- ISCST model cannot predict concentrations close to structure

Control of Methyl Bromide Exposures

- Containment
- Dilution
- Distance
- Time



6454(a): Distance Between Structure and Property Line

- If 50 lbs or less: 5 feet
- If >50 – 80 lbs: 5 x lbs MeBr - 240
- If more than 80 lbs: distance in feet = 2 x lbs MeBr

- Distance for 50 lbs and less based on monitoring data
- Distance for >80 lbs based on computer modeling
- Distance for 50 – 80 lbs based on interpolation

Basis for Distance and Amount of Methyl Bromide

- Distance based on monitoring data @ 5 ft
- Amount based on extrapolation of monitoring data
- Estimated air concentrations w/ recovery adjustment
  - 26 lbs MeBr
  - Concentration @ 5 ft during treatment: 70 ppb
  - Concentration @ 10 ft during aeration: 104 ppb
- Acceptable concentration is 210 ppb
  - Highest concentration during aeration
  - Can use up to 50 lbs and have acceptable concentration @ 5 ft

6454(b - d): Tarpaulins

- "Acceptable" tarpaulin does not show underlying fabric
- Cuts, holes, tears repaired prior to fumigant introduction

- 0.5 lbs/1000 or less: acceptable tarp
- >0.5 - 1.5 lbs/1000: acceptable tarp w/ drape of acceptable tarp or polyethylene
- >1.5 lbs/1000: acceptable tarp w/ polyethylene drape
- >0.5 lbs/1000 and >50 lbs: acceptable tarp

- tarp not required for concrete tilt-up structure

Basis for Tarp Requirements

- Tarping for 0.5 – 1.5 lbs/1000 based on monitoring data using acceptable tarp
- Tarping 1.5+ lbs/1000 and no more than 50 lbs based on monitoring and permeability data
  - Relative permeability of acceptable tarp and polyethylene: 1
  - Relative permeability for two acceptable tarps: 2
  - Relative permeability of single acceptable tarp: 12
- Tarping for more than 50 lbs based on computer modeling
  - Larger buffer used to make up for less effective tarp

6454(h): Aeration Time

- Start aeration during daylight: 1 hr after sunrise to 1 hr before sunset

- Based on monitoring data and computer modeling
  - Air concentrations higher at night due to more stable atmospheric conditions
  - Less air mixing and dilution of MeBr at night

6454(i - j): Convection Tubing

- Aeration through convection tubing
- Convection tubing outlet 6 ft above roof for 50 or less
- Convection tubing outlet 10 ft above roof >50 lbs
- Convection tubing as high as nearby buildings (table)

- Tubing placement for 50 lbs or less based on monitoring data for tubing connected to ladder on roof
- Tubing placement for >50 lbs and distance to nearby buildings based on computer modeling

6454(k): Aeration Buffer

- For 50 lbs or less: no people within 10 ft of structure
- For >50 – 80 lbs: no people within (5 x lbs MeBr – 240) ft
- For >80 lbs: no people within (2 x lbs MeBr) feet

- Distance for 50 lbs and less based on monitoring data
- Distance for more than 80 lbs based on computer modeling
- Distance for 50 – 80 lbs based on interpolation

Basis for Distance and Amount of Methyl Bromide

- Distance based on monitoring data @ 10 ft
- Amount based on extrapolation of monitoring data
- Estimated air concentrations w/ recovery adjustment
  - 26 lbs MeBr
  - Concentration at 10 ft during aeration: 104 ppb
- Acceptable concentration is 210 ppb
  - Can use up to 50 lbs and have acceptable concentration @ 10 ft

6454(n): End of Aeration, Tarp Removal

- Measure inside concentration w/ Fumiscope using pre-placed sampling lines
- If windows open:
  - Aerate through convection tubing until 1 oz/1000 inside structure
  - Remove tarps
- If windows closed:
  - Aerate space between structure and tarp with convection tubing
  - remove tarps
  - Re-place convection tubing
  - Aerate through convection tubing until 1 oz/1000 inside structure

Break Time !

Please be back in 15 minutes.

NEW AND PROPOSED SPCB REGULATIONS

Dennis Patzer

Chief Enforcement Officer

SPCB

CURRENT METHODS OF TREATMENT IN BRANCH III

TERMITE CONTROL

BRANCH III

- Pesticide Treatments (Whole House)
- Non Pesticide Treatments (Whole House)
- Spot Applications
- Baiting Systems
- Pre-treatment

WHOLE HOUSE TREATMENT

A whole house treatment is all encompassing and intended to treat all infestations of a wood destroying pest in a structure. This is a term usually used in relation to drywood termites and wood boring beetles.

FUMIGATION

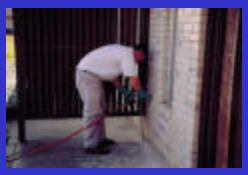
- Fumigant is introduced into a tarp covered structure and held until all areas of the structure have been treated.

TERMITICIDE TREATMENT SUB-SOIL

- Treatment to the sub-soil areas under a structure
- On actual infestation
- Around pier bases
- At foundation walls
- At embedded form wood

DRILL AND TREAT

- Holes are drilled adjacent to the areas of infestation
- Termiticide is injected into the holes and they are resealed



HEAT TREATMENT

- When the structure is covered and the heat held the required amount of time, this is considered a whole house treatment.
- This is the only alternative to fumigation

SPOT TREATMENTS

- A spot treatment may be done with both pesticide applications and device applications
- A spot treatment focuses only on the infestation in the area of treatment
- Spot treatments are never considered a whole house treatment
- Spot treatments are effective for accessible treatment areas only

LIQUID NITROGEN

- "Freezing their little buns off"
- This treatment is always considered a spot treatment.

GALLERY DUSTING

- A hand held duster is used to treat the infestation.
- The drywood termite gallery is dusted.

WOOD INJECTION

- Infested areas must be exposed for treatment
- Inaccessible areas cannot be treated

HEAT "SPOT" TREATMENT

- If the structure is not covered and only a specific area is treated, this is considered a spot treatment.

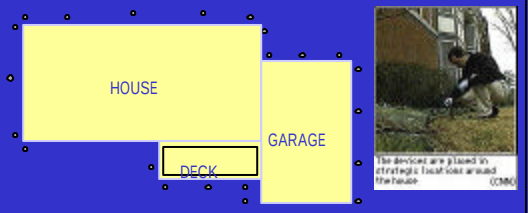
MICROWAVVE

- Microwave treatment is always considered a spot treatment.

TERMITE BAITING SYSTEMS

Subterranean termite baiting systems are designed to attract termites while they are foraging for food. The use of these systems for the elimination and control of subterranean termites is widely debated throughout the pest control industry and scientific community.

TERMITE BAITING SYSTEMS



BAITING SYSTEMS USED BY PCO'S

Sentricon

Firstline

Exterra

SENTRICON

FIRSTLINE - SMARTDISK

Station

Placement

Placement with Bait

EXTERRA

Station

Placement

PRE-TREATMENTS

- Soil area pre-treated prior to foundation slab being poured
- Foundation footings being treated after foundation pour

DEVICE REGISTRATION

All devices used in Termite Control are required to be registered by DPR or in the process of registration no later than July 1, 2001

STRUCTURAL PEST CONTROL DEVICES

The Department of Pesticide Regulation registers Structural Pest Control Devices

California state legislation [AB 1134 (Machado), Chapter 651, Statutes of 1998], created a regulatory program for structural pest control devices. Under the provisions of AB 1134, the Department of Pesticide Regulation (DPR) is responsible for the registration of devices utilized to control wood destroying pests, as defined. Prior to registration, DPR is responsible for review of the efficacy and safety data of each device. As of July 1, 2001, it will be unlawful to sell, possess, or use a structural pest control device in California, unless it is registered by DPR.

STRUCTURAL PEST CONTROL DEVICES

(continued)

to take disciplinary actions against violators of applicable state law.
AB 1134 amended both the Food and Agricultural Code and the Business and Professions Code, placing regulatory authority for Structural Pest Control Devices upon DPR and, to a lesser extent, to the Structural Pest Control Board (SPCB). DPR is responsible for the review of the efficacy and safety of the devices, and, if warranted registration of the devices. DPR also has the authority to take registration and enforcement actions against parties who violate state law pertaining to devices. The SPCB also has authority

STRUCTURAL PEST CONTROL DEVICES
(continued)

Structural pest control devices are defined in Food and Agricultural Code (FAC) Section 15300(a) as:

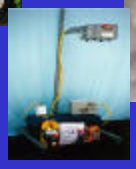
"...any method, instrument, or contrivance intended to be used to prevent, eliminate, destroy, repel, attract, or mitigate any wood destroying pest, but does not include firearms, pesticides as defined in FAC Section 12753, or equipment used for the application of pesticides when sold separately from a pesticide."

TYPES OF DEVICES CURRENTY IN THE REGISTRATION PROCESS

HEAT

DEVICES CURRENTLY IN USE

Heat - Registered



Microwave

Not Registered

ElectroPest

Not Registered

LAWS AND REGULATIONS UPDATE

Jim Walsh
Program Specialist
DPR

UPDATE

- Methyl Bromide check list
- Healthy School Act
- Structural Compliance Assessment

HEALTHY SCHOOLS ACT

- Split between two codes DOE Code and FAC
- One enforceable section annual reporting starting January 1, 2002
  - PCB application on school sites
- School sites= any facility used for ***public*** day care or K-12 purposes
  - Includes structures, play grounds, fields, vehicles or any area used or visited by pupils

HEALTHY SCHOOLS ACT

- **Annual Notification:**
  - pesticide name
  - Active Ingredient
  - www@cdpr.ca.gov
  - Opportunity to register
- **Individual Notification:**
  - 72 hours prior to those that register
- **Warning signs:**
  - 24 hours prior to 72 hours after
- Record keeping: warning sign + amount: four years

HEALTHY SCHOOLS ACT
EXCEPTIONS

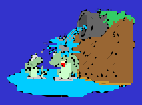
- Anti-microbials, crack and crevice, bait traps, emergency conditions
- CA Youth Authority (CYA), Ag. Vocational Education Program
- Enforced by the school district

STRUCTURAL COMPLIANCE ASSESSMENT

- Modeled on WPS compliance assessment program
- Primary focus is Branch 1 Fumigation
- Pilot program: only 3 counties currently being assessed
- Common non-compliances

AGENDA - DAY 3
MORNING SESSION

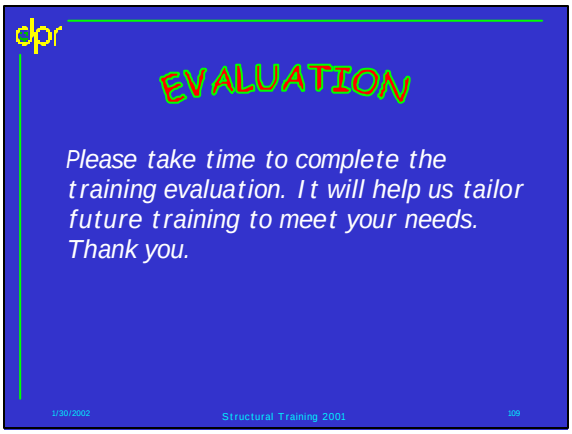
- Branch 1 Fumigation Aeration
- Inspection Review/Q&A
- Panel Discussion



AERATION

Mario Ibarra
Senior Pesticide Specialist
DPR

PANEL DISCUSSION


dpr
EVALUATION
Please take time to complete the training evaluation. It will help us tailor future training to meet your needs. Thank you.
1/30/2002
Structural Training 2001
109